US 1 Corridor Study

No. CAMPO 2005-02

Oversight Team Meeting #3

Phase I Multimodal Alternatives

February 21, 2006

Capital Area MPO

RS&H

In association with

MULKEY ENGINEERS & CONSULTANTS

URBAN Collage

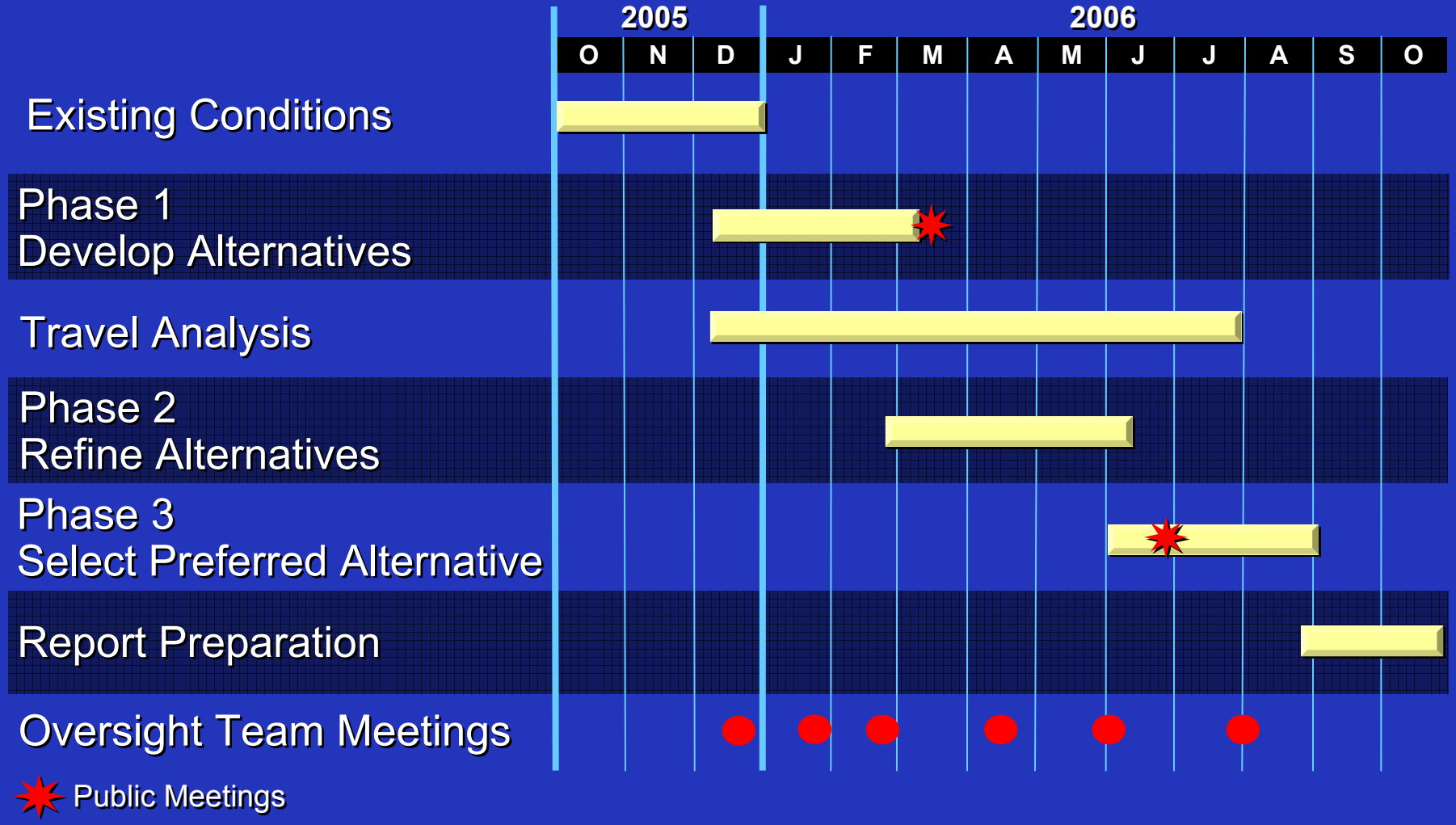
KITTELSON & ASSOCIATES, INC. TRANSPORTATION PLANNING/TRAFFIC ENGINEERING

Kimley-Horn and Associates, Inc.

Today's Agenda

- Project Schedule
- Project Purpose & Need
- Transit Alternatives
- Land Use & Multimodal Opportunities
- Highway Alternatives
- Community Involvement
- Feedback from Oversight Team

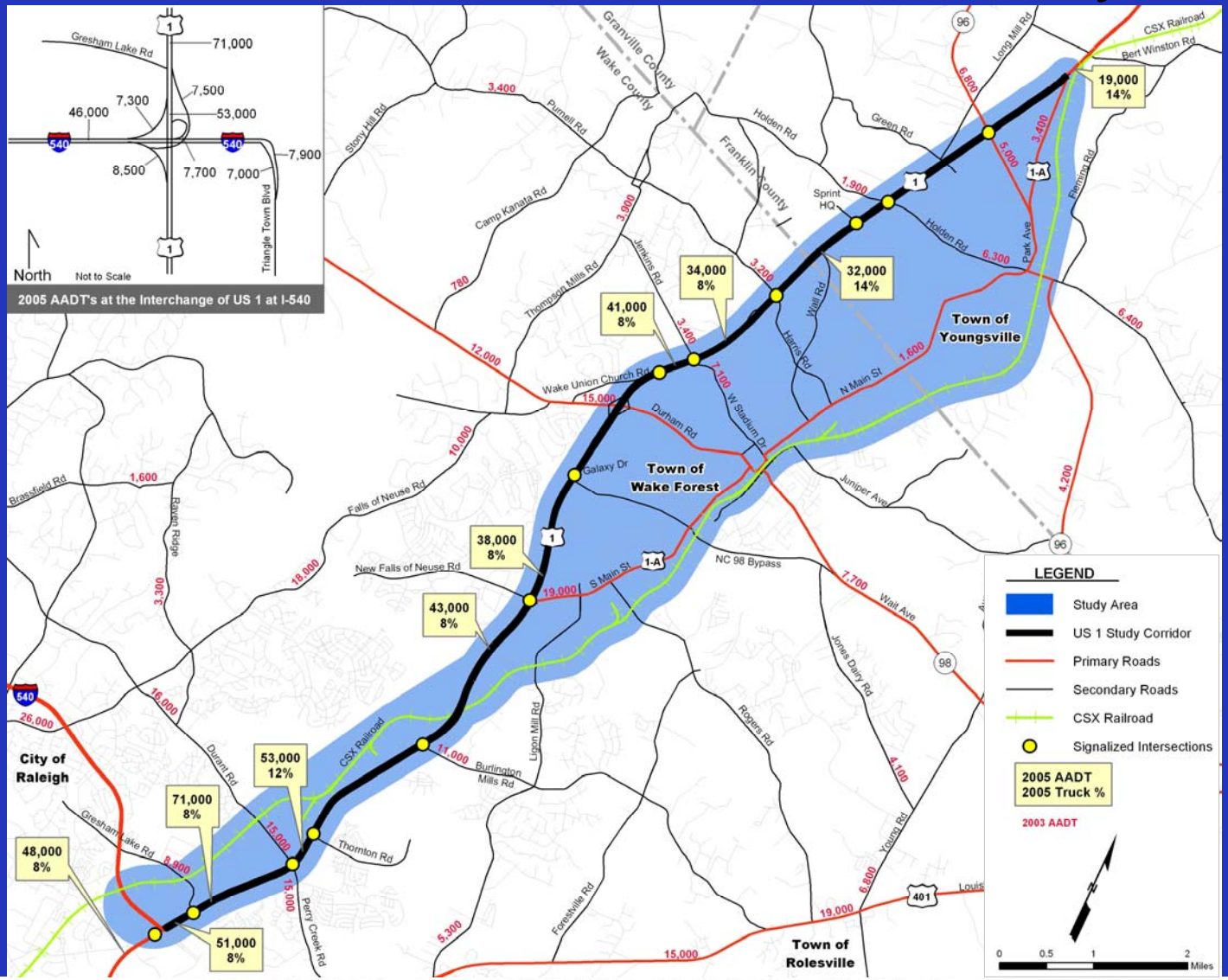
Project Schedule



Purpose & Need

- Develop a Comprehensive, Long-range Multimodal Transportation Plan that:
  - Improves Multimodal Access and Mobility
  - Encourages Economic Development
  - Increases Safety
  - Coordinates with Land Development
- Supports Economic Growth
  - Relieves Recurring Congestion
  - Improves Safety

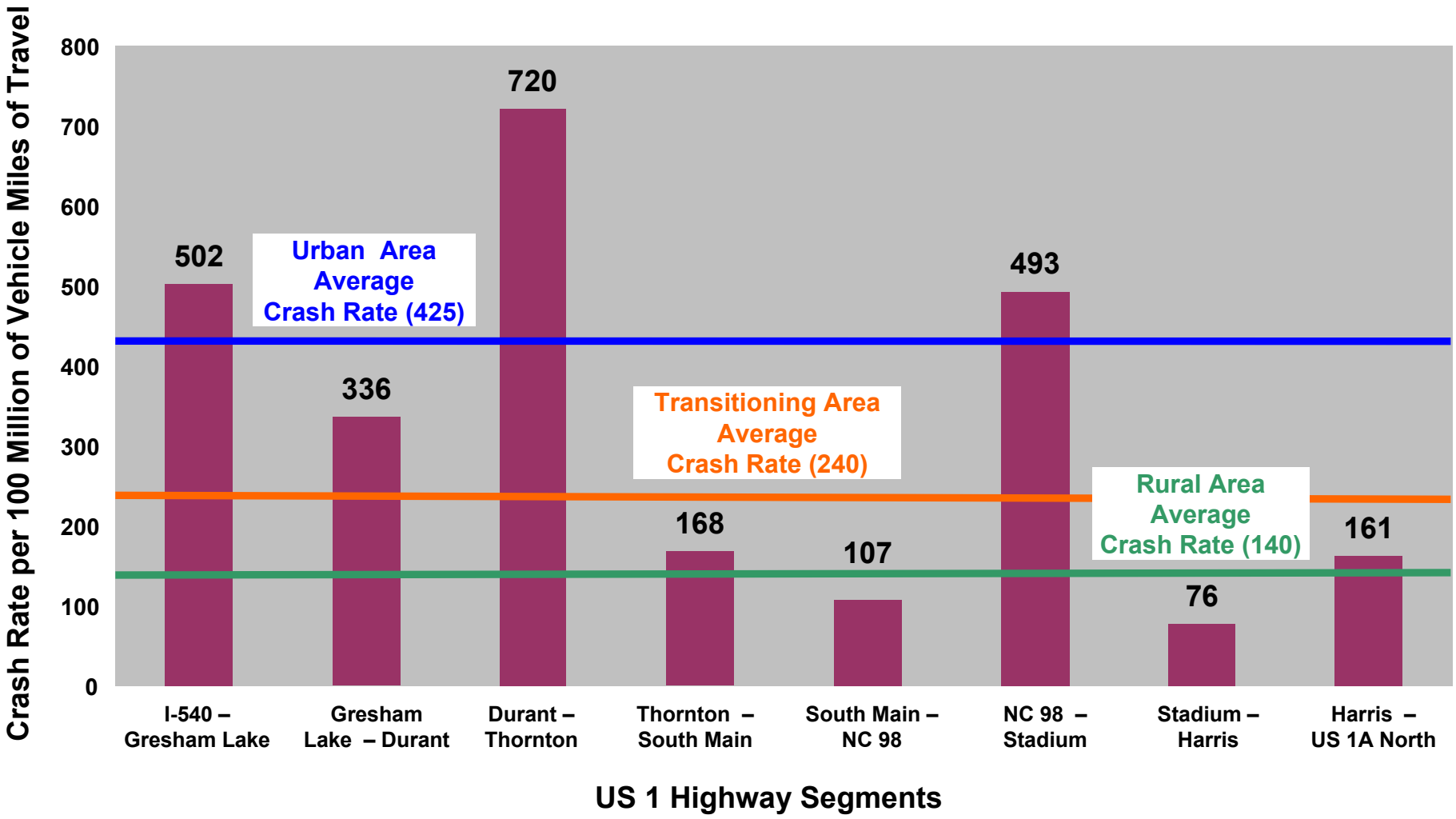
US 1 Study Limits
From I-540 To US 1A, Franklin County



Existing Travel Conditions

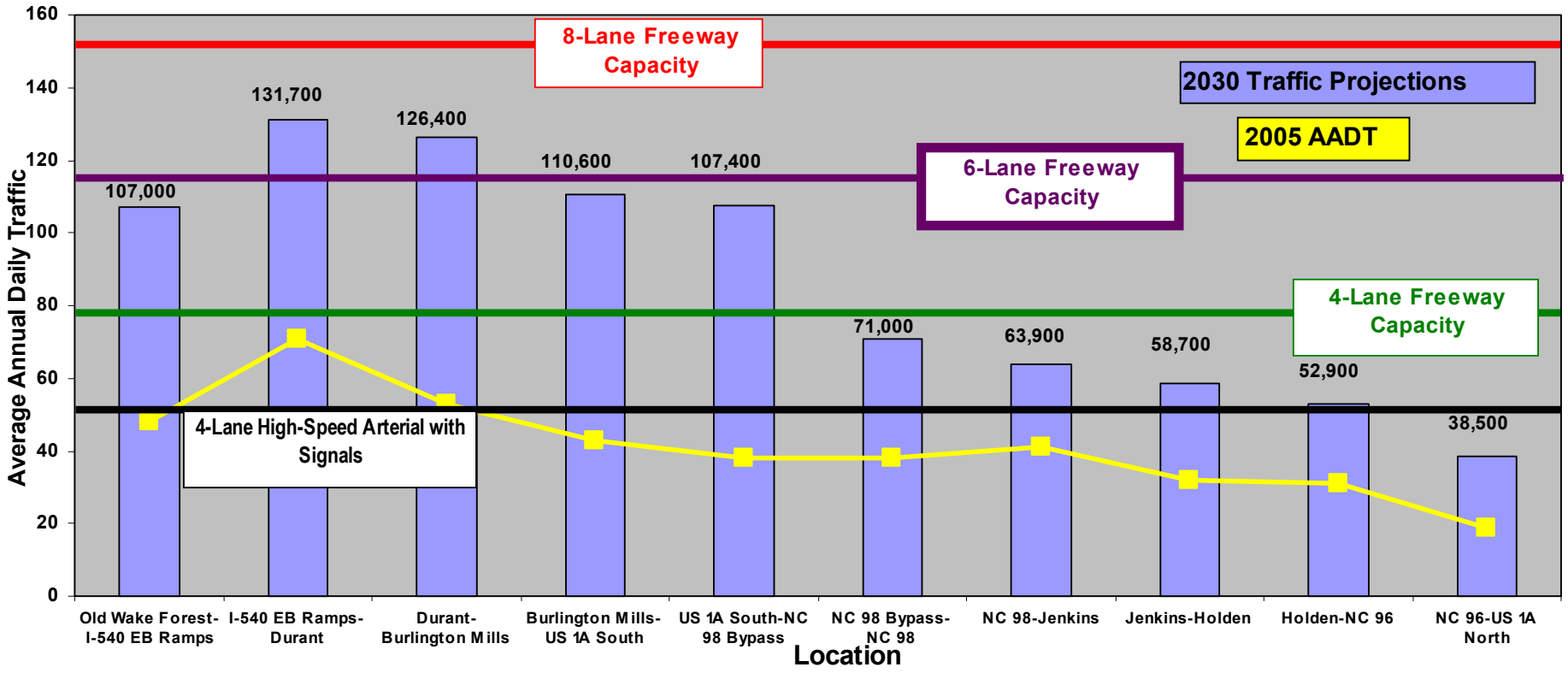
- Congestion
  - Over 71,000 AADT (2005)
  - Growth of 10% Per Year
  - 8 to 14% Truck Volumes
- High Crash Areas
  - Few Parallel Secondary Roads
  - Number of Access Points
- Access Points
  - 110 Driveways, Median Openings and Cross-Streets
  - 13 Signalized Intersections

2001–2004 Crash Rates



Source: North Carolina Department of Transportation, November 2001 - October 2004

2030 Traffic Projections vs. Capacity



Existing Transit Conditions

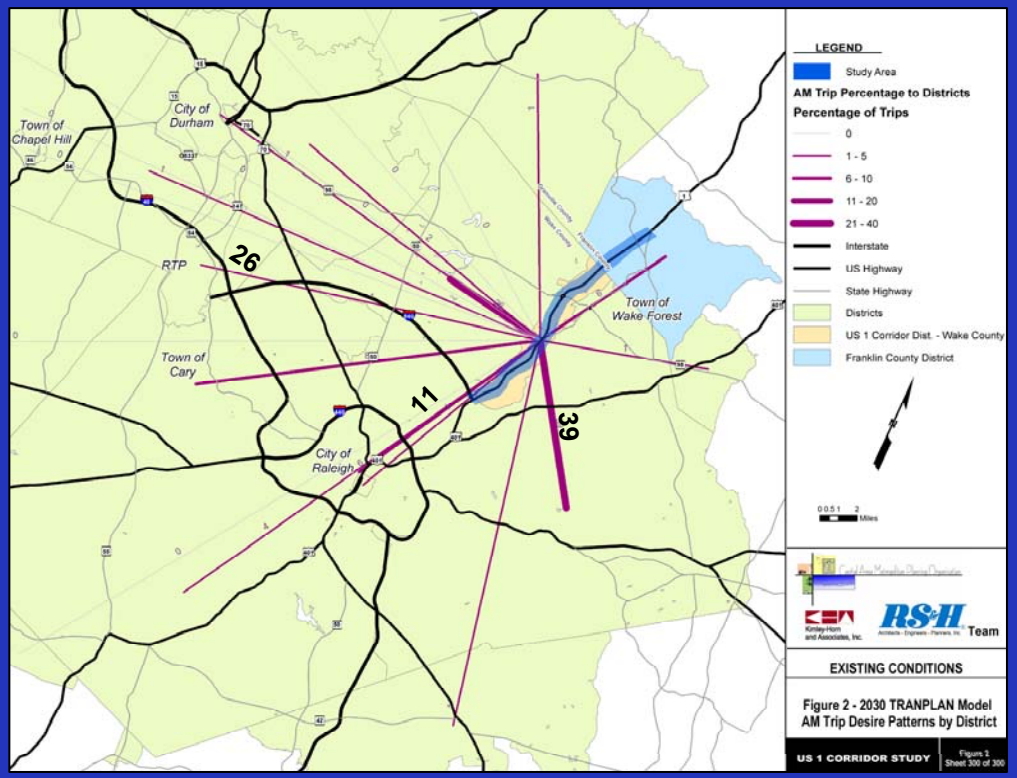
- No bus service along US 1 north of I-540
- Closest north-south bus service – CAT #1 route at Sumner Blvd. (south of I-540)
- CAT #25C circulator along Durant Road crosses US 1

Potential Transit Improvements Previously Identified

- Extension of US 1 local bus service north to I-540
- Express bus service to Wake Forest via US 1 and SR 98 with park-n-ride lots
- Regional Rail north to Durant Road (TTA studies)
- Southeast High Speed Rail – Richmond to Charlotte (FRA study)

2030 Trip Desire Patterns

- Dispersed trip pattern
- Greatest trip orientation
  - SE Raleigh (I-540 East)
  - RTP/Durham
  - Downtown Raleigh



Minimum Development Thresholds for Transit Modes

- Traditional commuter rail
  - 25 million s.f. of downtown office space supports 1.5 households per gross acre
  - US 1 corridor has densities under 1.5
  - Dispersed trip patterns in US 1 corridor
  - Conclusion: Traditional commuter rail not recommended for US 1 corridor under current planned densities and trip patterns

Minimum Development Thresholds for Transit Modes

- DMU Rail
  - Typically serves strong anchors at both ends – not the case in US 1 corridor
  - Also low population density
  - Conclusion: DMU rail not recommended for US 1 corridor under current projected corridor densities and anchors

Minimum Development Thresholds for Transit Modes

- Local / Limited Bus Service
  - Min. density of 3 households per gross acre to support hourly bus service
  - Dependent on sufficient walk-in patronage within ¼ mile of route
  - Conclusion: Limited potential for local bus in US 1 corridor unless concentrated density occurs

Commuter Bus Option

- Limited stop operation
- Serves dispersed trip patterns – as in US 1 corridor
- With fewer passengers in bus than train, successful operation in lower-density areas and smaller city centers
- Flexibility to alter routes to increase ridership
- Typically over the road coaches

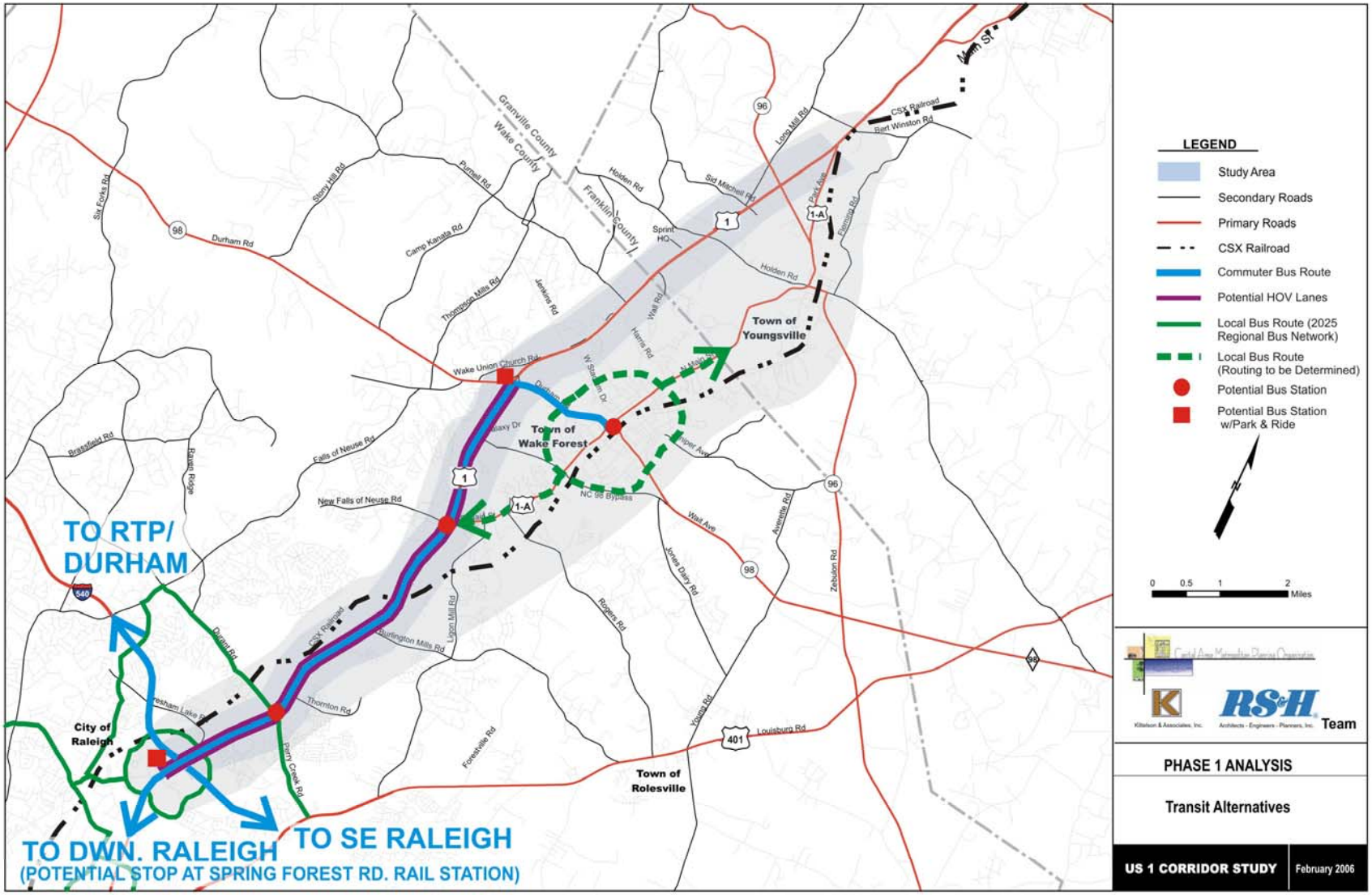
Ability to Use CSX Corridor

- Commuter rail/DMU considered not necessary
- Alternative: Can CSX corridor be used as busway?
- Continued freight rail/potential intercity passenger rail preclude elimination of other rail service
- Parallel busway not possible without added ROW acquisition

Transit System Components for Further Evaluation

- Three commuter bus routes – from Wake Forest
  - to downtown Raleigh
  - To RTP/Durham
  - To SE Raleigh (I-540 East Extension)
- Circulator bus route in Wake Forest area/other local bus improvements if sufficient development occurs
- Two new park-and-ride facilities:
  - US 1 / Durham Road (SR 98)
  - US 1 / I-540
- With vs. w/o HOV lanes on US 1 south of SR 98

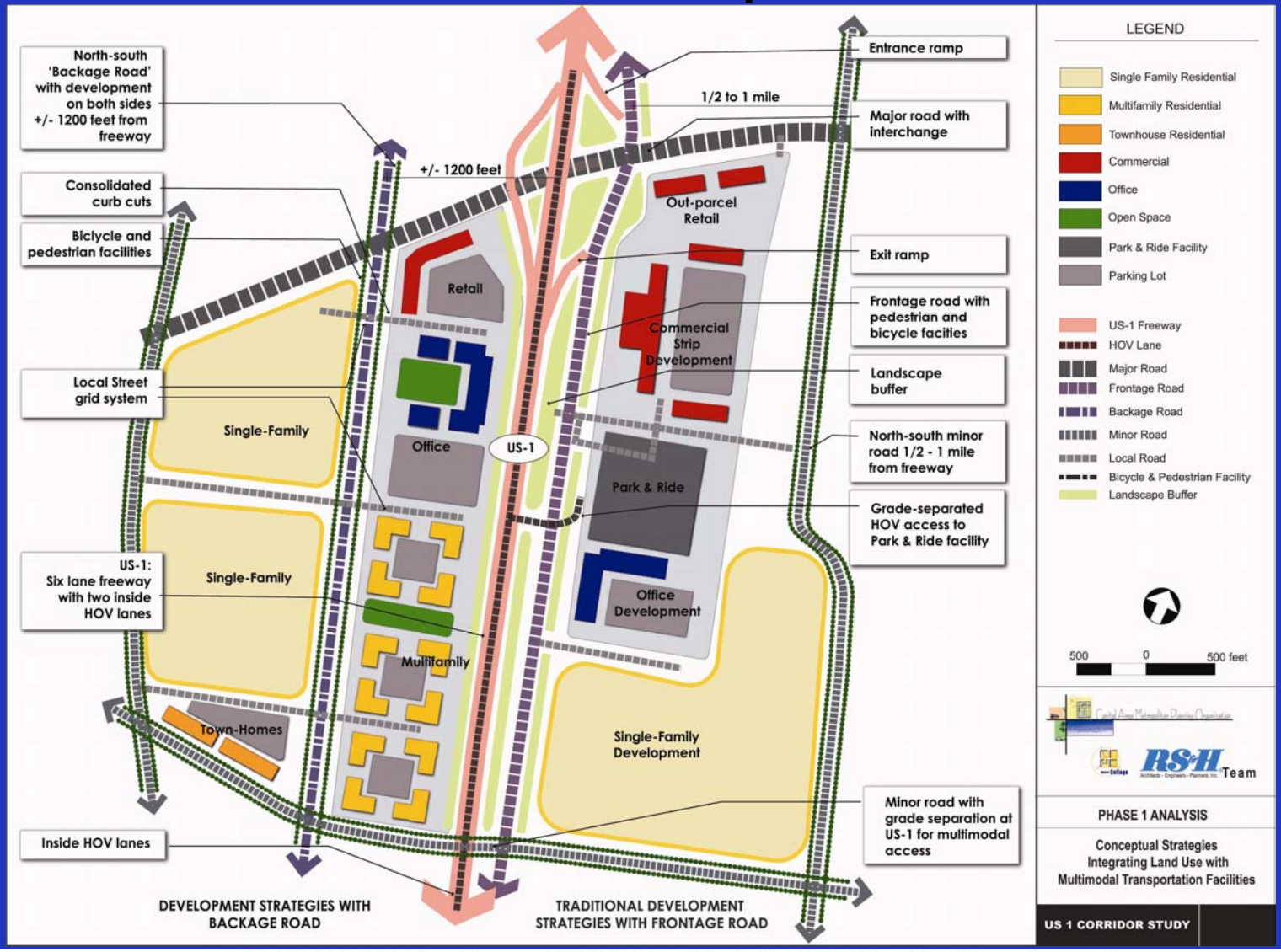
Transit System Components for Further Evaluation



Further Transit Assessment

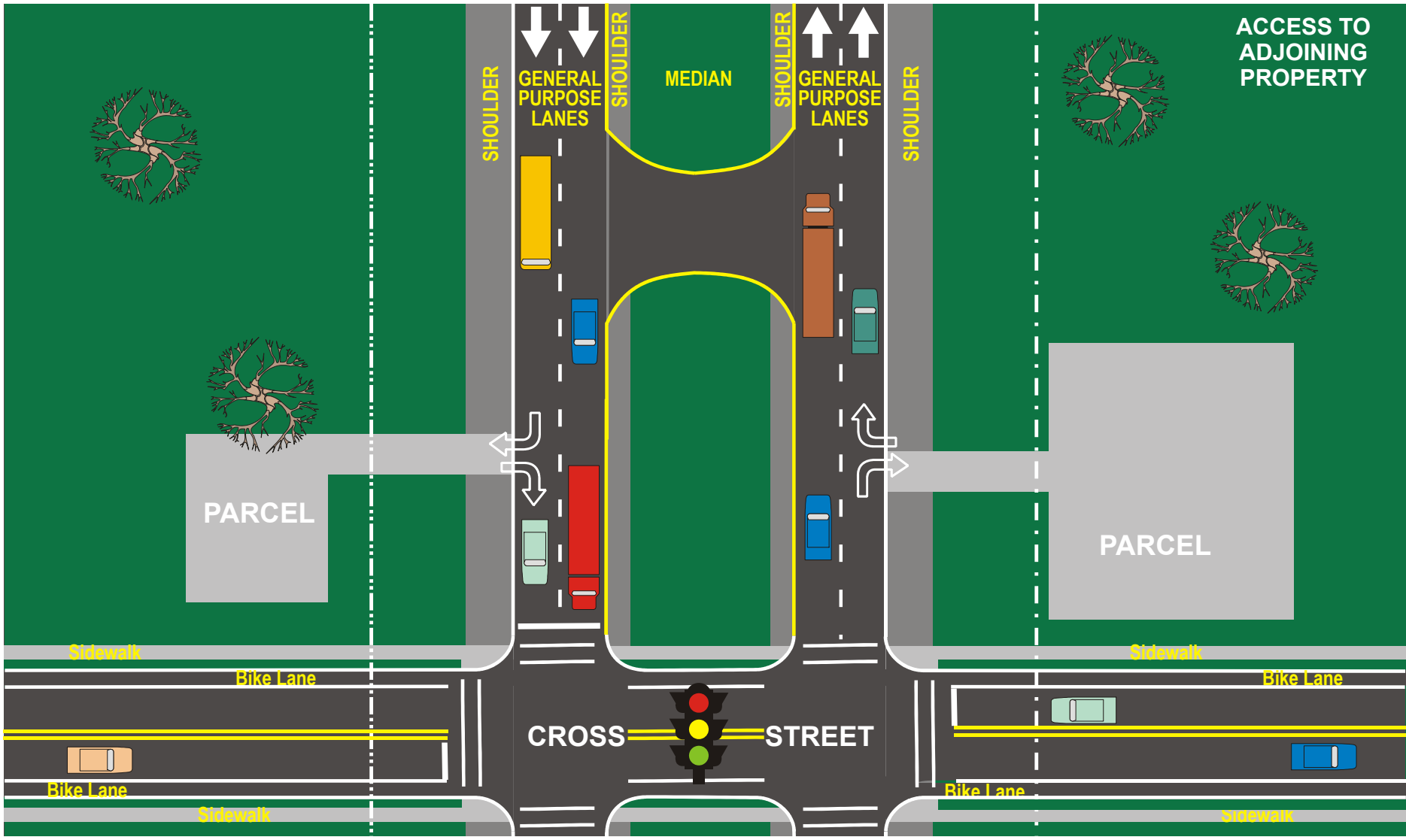
- Transit ridership projections
- Size/location of stations and park-and-ride facilities
- Refined local bus assessment
- Placement and connections to HOV lanes along US 1

Conceptual Strategies Integrating Land Use w/ Multimodal Transportation Facilities



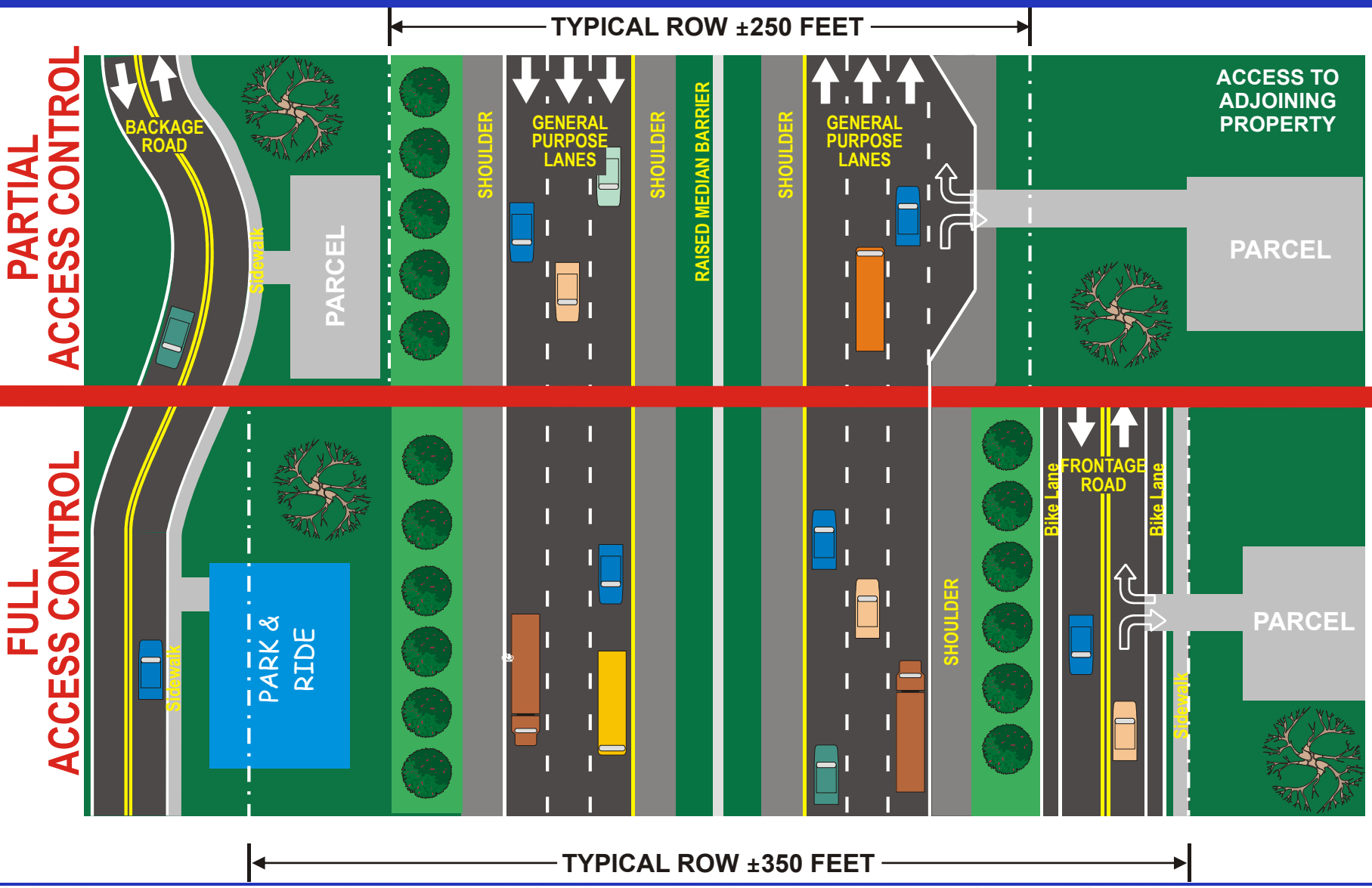
Multimodal Alternative I – No Build

EXISTING ACCESS MANAGEMENT

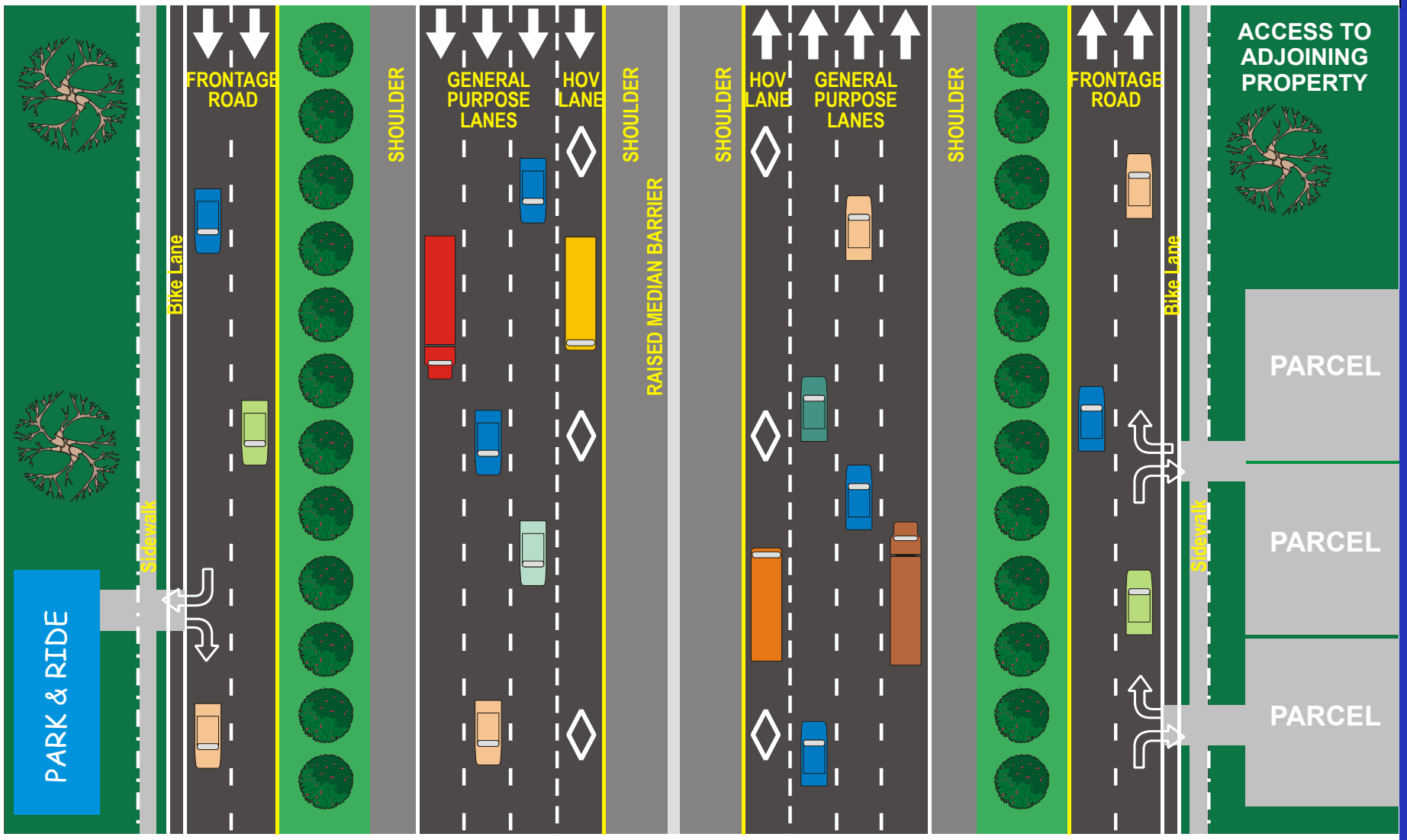


TYPICAL EXISTING ROW 200-250 FEET

Multimodal Alternative II - Highway



Multimodal Alternative III – Freeway + Transi



Community Involvement

- Website: www.ncdot.org/~us1study
- First Newsletter Being Mailed
- Third Oversight Team Meeting - Today
- First Public Meeting – Tuesday, March 14, 2006

WELCOME To
US 1 Public Information Meeting

- Please Sign In To Be Placed on Mailing List
- Please Take A Handout
- Open House Format
- There Will Be No Formal Presentation
- Study Team Is Here To Answer Questions
  (Look For Blue Name Tags)
- Please Provide Feedback

Next Steps….

- Prepare for 1st Public Meeting (March 14th)
- Develop Screening/Evaluation Methodology
- Complete Traffic/Transit Modeling and Analysis
- Refine Multimodal Alternatives

Feedback

Questions

Thank You